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CLINICAL LECTURE.

DOUBLE OVARIOTOMY—GYNECOLOGICAL DIAGNOSIS.

BY WILLIAM GOODELL, M. D.,
PROFESSOR OF GYNECOLOGY IN THE UNIVERSITY OF
PENNSYLVANIA.

Gentlemen: Before beginning my lecture I beg of you that, during the coming session, no one leaves the room while the peritoneal cavity of a patient is open, and that no applause or noisy demonstration of any kind be indulged in, until the wound is closed. My reasons for this request are the following: In the former case, septic germs are liable to be introduced from without through the opened door; and, in the latter, dirt, impure dust is floated up from the floor to fall down upon the wound. Trusting that you will scrupulously grant this request, I shall now bring in a case for laparotomy.

Double Ovariectomy.

This patient, with a large abdominal tumor, is fifty-three years old, married and the mother of ten children. Three years ago she ceased to menstruate; but a few months since her catamenia returned not only with greater severity but also with increasing frequency. This symptom generally points to the presence of a uterine fibroid tumor; but, upon using the sound, which passes in only three and a half inches, the womb is found to be movable, though with difficulty, and separate from the tumor. As the latter demands some effort to raise it up, I fear that there are adhesions on its lower surface. Preparatory to the operation, the patient's bowels were moved yesterday by castor oil, and an enema was given this morning. She has had no solid food for twenty-four hours, and since this morning her abdomen has been kept covered with a napkin, soaked in a weak (1 : 4000) solution of the bi-chloride of mercury.

Boiling water is now poured over the instruments; for heat is a better germicide than carbolic acid, which however I add later—more to cool the water, than to make the canonical two per cent. solution. Having then washed my hands in a 1 : 1000 solution of the bi-chloride, and my assistant having done the same, I cut down through the skin, superficial and deep fasciae in the median line, just below the umbilicus, by an incision five inches long. The preperitoneal fat is now divided carefully until the peritoneum is exposed. Before this is divided, all bleeding vessels are secured with clamps, and the womb is thoroughly cleansed with a sublimated solution. I now catch the peritoneum by two forceps, raise it up, so as to avoid any intestine, and carefully divide it. This being done, the cyst comes into view. It is of an acreous, or pearly, color and therefore is undoubtedly ovarian.

The trochar is now plunged into the upper part of the tumor, and, as you see, a coffee-like fluid escapes, which exhibits on its surface minute sparkling points, caused by crystals of cholesterol. There fortunately are no adhesions, and the sac when emptied is readily drawn outside through the incision. Sponges are quickly packed into the abdominal cavity, and the pedicle is secured by a ligature tied as close to the womb as possible. The empty sac is next cut off and removed.

I now strip off a redundant portion of the pedicle and take a look, as is my custom, at the other ovary. Upon it is a small cyst. I shall, therefore, likewise, take it out, although its removal will arrest menstruation, and bring on the change-of-life. Yet in this case this cessation will be beneficial on account of the uterine hemorrhages. In all oophorectomies the ovarian tissue must be wholly removed. Otherwise some germinating stroma may remain behind to keep up menstruation. Hence, in this case, I am obliged to tie very close to the womb. The sponges are now removed, washed and replaced. There were no adhesions present, but the extreme shortness of the pedicle made it appear as if there were.

Now I proceed to close the cavity. These needles, threaded with silk, have been immersed in a saturated solution of carbolic acid for seven hours. I pass them from within out, including all the tissues, especially the peritoneum; because, on account of its greater vascularity, it unites more quickly than the other tissues, thus

securing the cavity of the abdomen from pus or any other septic material which may develop in the wound above it. The elasticity of the skin makes the incision much smaller now, since the tumor has been removed. In closing it each one of the tissues must be included within the sutures, in order to obtain perfect coaptation and to prevent a hernia; which may, however, occur, in spite of every precaution, both in short and in long incisions. The sponges being now removed from the abdomen, they and the instruments are carefully counted. This taking count of stock is very necessary, for a number of women have lost their lives because a sponge or an instrument has been left behind, even by careful operators. As during the operation the smaller cyst burst and its contents escaped into the abdomen, I shall with a syringe from which the air has been excluded, thoroughly irrigate the abdominal cavity by passing the nozzle of the syringe into Douglas's Pouch and by pumping water in, until it comes out wholly clear. A drainage-tube is put in temporarily, in order to get rid of any water that may have been left. When all the stitches are tied I shall compress the abdominal wall, force out all the water and take the tube out. The dressing that I use is as follows: 1. Iodoform sprinkled over the wound, especially about the navel, which is a favorite harbor for germs; 2. Iodoform gauze; 3. Bichloride cotton; 4. Baked cotton, which is held in position by adhesive strips and further secured by a broad binder that has been previously passed round the body.

The after treatment will be simple. The patient is to have no food for twenty-four hours. Then she will have a half ounce of milk or of broth every two hours, later one ounce, then still more, especially after wind begins to escape from the lower bowel. The stitches will be removed in a week and, if everything goes well—as it most likely will—her temperature will not rise above 100° F. No opium will be given, if it can be avoided; because, in the first place, it lessens peristalsis and thereby interferes with the escape of wind and the movement of the bowels; and, in the second place, by paralyzing the bowels it encourages adhesions. Besides, the pain is not generally severe enough to call for the use of opium.

Gynecological Diagnosis.

The next patient, whom I bring before you merely in order to make a diagnosis, is

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Communications.

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twenty-seven years old, married and the mother of three children, the eldest of whom is nine years old and the youngest two. She was healthy as a girl, menstruated at fifteen and was married at seventeen. Three months ago she began to have pain in her back and right flank. Three weeks ago she was tapped of some colloid fluid, without emptying the tumor, and in the short interim the abdomen has been rapidly increasing in size.

The first question I ask is: Is the fluid free or encysted? If free, we ought on percussion to have resonance in the median line from the floating up of the intestines and to have dulness in the flanks. But an examination reveals marked dulness in the right flank, which increases as we get nearer the median line. The lower part of the abdomen is also dull, while fluctuation is obscure.

The right side of the abdomen is occupied by a hard body, which the patient says was more apparent directly after the tapping. The tumor is not continuous with the liver, because the resonant colon intervenes, and, moreover, she says it began below and grew upward. Certainly we are dealing with an abdominal tumor containing some fluid, and there appears to be ascitic fluid as well.

The woman's monthly periods have not appeared since July, and her breasts are very much withered since then. Upon examination I find that the cervix is drawn up behind the pubis and that the womb gives a measurement of more than four inches. The womb is firmly fixed, but it appears to be merely attached to the tumor and not a part of it. The white and, therefore, old linea albicans on the abdomen make us certain that there has existed at some previous time a distension of the abdomen. Now, if a woman shows these old scars on the abdominal wall, and bears no evidence of chronic disease, we can be morally, although not absolutely, certain that she has once been pregnant. For, if they had come from a dropsey due to hepatic, cardiac or renal disease, the organic lesions would most likely remain constant. Again, were these cicatrices due to distension from the tumor now in the abdominal cavity, they would be purple, not white and glistening.

The rapidity of growth in this tumor, these blue tortuous veins on the abdominal wall from deep seated obstruction, make me incline to the diagnosis of malignant disease of an ovary. I shall, however, in a few days make an exploratory incision to see what can be done. If the tumor be a sar-

coma, it may be successfully removed and the patient may live for many years before it returns. If it be a carcinomatous growth, adherent in many places, the exploratory incision can be closed up and her life will not be shortened thereby. Finally, if the growth prove malignant and yet have a pedicle, it can still be removed and life may be greatly prolonged, for as the woman now is I do not think she will live three months longer.

COMMUNICATIONS.**THE TYPHOID STATE.**

BY J. CHRIS LANGE, M. D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE AT THE WESTERN PENNSYLVANIA MEDICAL COLLEGE, PHYSICIAN TO THE WESTERN PENNSYLVANIA HOSPITAL, PITTSBURG.

The typhoid state or the typhoid condition presents its phenomena in various diseases. These phenomena are referable to the nervous and muscular systems. In the northern temperate zone they are observed in greatest perfection of development, as well as with greatest frequency, in typhoid fever, and from no better grounds have grown: first, the application of the term "typhoid" to this state, and, next, the questionable custom of qualifying the name of other diseases, when complicated by this state, with the prefix or suffix "typhoid." The term "typhoid," used to designate that particular typhus-like fever is an example of unscientific nomenclature, and it is as desirable as it is difficult to find a better for this purpose. No adequate excuse can be offered, however, when this term is used to qualify or describe other diseases, and the abolition of the custom would be a desirable step in nomenclature. The undesirability of using a term whose primary significance implies a fever of specific origin, with a specific lesion, to designate other diseases is seen in the obscurity in which it involves a pneumonia complicating a typhoid fever and a "typhoid pneumonia."

The "typhoid state" is common to many diseases; it is not presented in every case of typhoid fever; and it is more frequent in typhus and some other diseases than in typhoid fever. Therefore, were it not that custom makes the law, it would be as proper

in every aspect to describe a "typhoid" typhus fever or a "typhoid" typhoid fever as it unfortunately is to describe a typhoid pneumonia or a cholera typhoid.

From these considerations it follows that the term "typhoid" embraces two very different meanings. First, it designates a specific fever, and next a certain condition of the nervous and muscular systems. Further, this condition of the muscular and nervous systems is manifested in various diseases—in typhoid fever as well as in others ; but it is in no manner more closely related to typhoid fever than to other infectious diseases ; it is no more essential to the clinical history of typhoid fever than to that of other infectious diseases ; and it is as much entitled to rank as a complication of typhoid fever as of any other disease. It is a condition not peculiar to typhoid fever but quite distinct from this and bears the same name only because other diseases do not so frequently present themselves possessed of duration and gravity sufficient to produce this state, as typhoid fever does. The typhoid state is produced by the duration of disease or by its intensity. It is an ataxy—a disturbance, a confusion. Its phenomena are muttering delirium, hallucinations, coma-vigil, typho-mania, deafness, muscae volitantes, picking at the bed-clothes or body-linen (*caphologia*), inco-ordinate voluntary movements, difficulty in swallowing, changed or inaudible voice, the dropped jaw, the tremulous tongue, sinking down or sliding down in bed, vomiting, diarrhoea, tympanites and relaxation of the sphincters. The presence of few or many of these signs, symptoms and phenomena declare the presence of the typhoid state in disease, and they are presented in conjunction with those characteristics of the disease it complicates.

The pathogenesis of some of these symptoms is obscure ; that of others is well understood. The state itself is observed to precede death by starvation. It is commonly presented in acute diseases involving marked innutrition, exhaustion of all muscular tissue and especially of the heart. So certainly and frequently do prominent phenomena of this state follow rapid and great muscular exhaustion, and particularly heart exhaustion, that this deserves to be considered as one of its causes. When the typhoid state is induced by heart exhaustion (which is not however assigned as its solely acting cause) then it occurs late in disease, and those of its phenomena which are referable

to the muscular system are pronounced and prominent.

Again the typhoid state comes in consequence of exhaustion of the nervous system and especially of the brain. Mental quietude, fright, terror, repeated mental perturbations and shocks, delirium, hallucinations, the decided disturbances of encephalic circulation and nutrition, but particularly the abolition of sleep, are the factors of disease engaged in brain exhaustion. Sleeplessness is beyond doubt the most potent of these, and seems of itself a sufficient as well as a frequent cause of the typhoid condition. When the typhoid state is produced by brain exhaustion, whether this happens early or late in disease, then the phenomena of the condition present a greater likeness to those of alcoholism. There is greater mental excitement ; there is less physical debility ; the patient may be able to walk ; there is less muscular inco-ordination but more tremor, and hallucinations are more frequent and obstinate.

A factor of disease frequently assigned as the third cause productive of the typhoid state is high temperature. Personal observation directed to this point constrains the belief that high temperatures are not entitled to rank as causative of the typhoid state. High temperatures are rare except in the infectious diseases ; and it may be arbitrary to certainly ascribe the occurrence of the typhoid state in these diseases to the temperature elevation, if this be high, and to quite ignore the influence of the infection. It is impossible to accept the widespread theory that high temperatures determine the occurrence of the typhoid state. The unbiased consideration of personal experience forbids it. High temperatures exert baleful influences upon the nervous system as well as upon the body at large, yet it is quite common to observe high temperatures continue many days, the patient feeling comparatively comfortable, and presenting no symptom of the typhoid state. Equally as frequent is it to find very moderate temperature elevations in the infectious diseases while the patient presents marked phenomena of this state. In diseases certainly not infectious which present high temperatures : for instance insolation when the patient is not comatose, the typhoid state is not presented. It is not forgotten that in certain cases of heat exhaustion, particularly in the tropics, when the duration of the disease occupies many weeks, the typhoid state precedes death. But this

happens late in the disease; the temperature then is no longer high; the typhoid state is obviously due, not to temperature elevation, but to one or both the previously mentioned causes: heart and brain exhaustion. The same is true of inflammations, certainly not infectious; and that the typhoid state frequently complicates croupous pneumonia and acute tuberculosis constitutes additional evidence that these inflammations are infectious diseases. A high temperature persists without causing the typhoid state on the one hand; and, on the other, the typhoid state is presented in the infectious diseases without the occurrence of high temperature. These considerations constrain the belief that high temperature, although commonly co-existing with the typhoid state, is not the cause of this latter but a concomitant; and that both are consequences of the special poisons of the infectious diseases; and further, that when the typhoid state is presented in diseases certainly not infectious, this is due to either heart or brain exhaustion.

If it be asked why, if this state be due to the presence in the blood of the special poison of an infectious disease, it is not presented in all cases, it can be answered only that the patient who presents this state has received a greater quantity of the special poison, or that the special poison he has received is of greater activity or of greater virulence than the poison received by another patient who does not present the typhoid state; or, finally, that the first possesses a greater susceptibility to the action of this special poison than the last. With our present knowledge, in short, the presence or absence of the typhoid state in an infectious disease must be ascribed, on the one hand, to the properties of the special poison, or on the other, to the susceptibility of the patient. And the same answer is pertinent to the question: Why is not a high temperature always presented?

The phenomena when the typhoid state is due directly to the special poisons of the infectious disease constitute evidence that a most profound impression has been made upon the brain and nervous system. This state so produced comes early, immediately. When these disease germs in the blood of the patient have multiplied sufficiently or have matured sufficiently, or have produced sufficiently their toxic principles—that is, when the period of incubation has terminated—then, if the typhoid state be due directly to the action of these poisons upon

the brain and nervous system it may come as rapidly as narcotism can be induced by opium. This is observed oftenest in diphtheria, scarlatina, typhoid fever and cerebro-spinal fever. In the great majority of such cases the typhoid state has a duration of a few hours or a few days and terminates in coma; and coma in this connection is synonymous with death. Such patients are overwhelmed by these special poisons, and are stricken as though felled with an ax. Such attacks by these special poisons exemplify all the horrors and terrors embraced by the word "malign." They are malignant. Those cases in which coma does not follow the typhoid state are exceptions to the rule. When this happens, first its graver and then its other phenomena gradually disappear and finally the patient presents only the symptoms proper of his disease and has to contend only with its usual and characteristic dangers. An interesting question in such cases is: Has the special poison wholly or partly been eliminated? The growing probability that certain toxic alkaloids, which seem invariable products of organized germs in the blood, are causative of the intoxication of such infectious diseases, and, indeed, of the diseases themselves, and the fact that these alkaloids have been extracted from the urine of such patients, make it likely that in a few hours, perhaps immediately, after the manifestation of an infectious disease elimination of these special poisons is already under way, and that the urine is one medium for their extrusion. Despite this probability in explanation of recovery from such malignant attacks, another is deserving of equal consideration. It is, the genesis of a tolerance of these poisons. If the first onslaught can be met and withstood, then a tolerance is established which grows from day to day. A study of other conditions of disease establishes this as a probability in explanation of recovery in such cases. Such a tolerance is established, for instance, in uremia, in opium narcosis, and in carbonic acid poisoning, which, though not identical, are analogous conditions.

The typhoid state, whether induced by heart exhaustion, brain exhaustion, or the infectious poisons, presents no special lesion. It possesses no anatomical character. The lesions appreciable are those characteristic of or peculiar to the disease which it complicates. The great and rapid waste required to produce this state presents, besides adipose

atrophy, that form of fatty degeneration of muscular tissue, particularly of the heart, which is called granular. When this state is due to brain exhaustion or to the direct action of the infectious poisons upon the brain and nervous system, no lesion is discoverable which deserves to be regarded as causative of the symptoms observed during life. The anatomical changes in the brain bear no relation to the phenomena of this state. In all infectious diseases, except cerebro-spinal fever, no anatomical change, gross or microscopical, accounts for the symptoms observed during life. This is true of delirium, mild or violent, of the intensest cephalalgia, of pupil eccentricities, of coma, of convulsions and tetanic rigidity of the cervical and dorsal spine. The same is true of the phenomena of the typhoid state. They cannot be referred to anatomical change. Sometimes punctiform meningeal blood extravasations are discovered; sometimes there is meningeal opacity; sometimes slight meningeal œdema or cerebral œdema; oftenest only the loss of normal brain consistency observed after chronic or very exhausting acute disease. Certain it is, that these abnormalities bear no relation to the severity of the symptoms.

The prognosis in any case of disease is increased in gravity by the presence of the typhoid state. This is true if this latter be due to heart or brain exhaustion; if it be due directly to the infectious poisons then the prognosis is almost necessarily a fatal one. In many cases, however it be caused, it is but the precursor of death. When this is true, the patient grows gradually more stupid, and finally sinks into that complete muscular relaxation accompanied by the abolition of the general and special senses and consciousness, which is called "coma." On the other hand the typhoid state, except when due to the infectious poisons, does not involve the occurrence of coma. Very many cases recover. The prognosis depends to a very considerable extent upon what disease this state complicates. For instance, when it occurs in typhoid fever the prognosis is much better than when it occurs in diphtheria. Further, the prognosis is influenced by the time of its occurrence and by the efficacy of remedies addressed to it. Again, the prognosis is decidedly dependent upon the character and number of its phenomena, that is, upon the intensity of the state. The gravest of these are: growing stupor, vomiting, diarrhoea and tympanites. Next in

order of gravity may be placed the extreme muscular exhaustion indicated by falling of the jaw, the inability to move a limb, the inertia manifested by sliding down in bed, the change in the first heart sound, with sighing or shallow respiration. Relaxation of the sphincters, the tremulous tongue, aphlogia and subsultus are common in cases of typhoid fever which recover. In cases of pneumonia which recover they are not so common. The same is true, but to a lesser extent, of typho-mania and coma-vigil. These considerations in conjunction with the signs, symptoms and phenomena proper to the disease which this state complicates are of weight in prognosis.

Immediately the typhoid state is declared in any disease, this latter, as far as treatment is concerned, sinks into insignificance. The phenomena of this state sufficiently demonstrate the urgent necessity for its removal, and present imperative indications for treatment. Remedial measures are addressed directly to this state, its cause or its phenomena. Although in a given case one or the other may be more active, heart and brain exhaustion go hand in hand in the production of this state. Acute general disease is in possession of no weapon with which it may destroy the heart and leave the brain uninjured, or paralyze the brain and leave the heart intact. But, from the course of the disease, its incidents, events, its ravages and spoliations, the indications come which designate which of these two co-operative causes has been most potent to produce this state. If this be heart exhaustion, then stimulation by the alcoholics undoubtedly deserves first rank. How rarely when such a patient recovers does his physician doubt that the alcohol has contributed to this desirable end! The good effects of dietetic, hygienic and medicinal measures are insufficient, and the dire ravages of the disease have not yet ceased; disease has almost lived its time, but not yet quite. What, but this "indirect food," alcohol, with its compelling power to make both ventricles renew their strength, can make the sluggish stream of blood move on, clearing the brain, brightening the eye, steadying the muscles, holding in tight embrace vitality which otherwise assuredly would have left its tenement? Such cases are rare, but they occur and are exemplifications of the power and beneficence of our art.

When the abolition of sleep is the pronounced cause of the typhoid state, then

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the object of treatment is to procure sleep for the patient. In such cases this state gives warning of its approach. It never comes as an unheralded calamity. Its approach has precursors. Its advent is preceded by its lighter symptoms. Because of this, when it has come, remedial succeedaneums again have proved their right to grow a hopeful faith and then to blast it. They have been tried—tried and found wanting. So when the typhoid state has come in all perfection there is but opium. Opium and alcohol! It is a pregnant commentary upon a therapeusis, growing more boastful year by year. The limits of this paper forbid a defence of opium in this condition. As it is true that in certain cases the typhoid state will terminate without its use and the patient recover, as it is true that in other cases, particularly in pneumonia, its administration will but favor the growing tendency to coma, *i. e.*, to death, so it is also true that in certain other cases its exhibition will save life.

Little is to be said of the treatment when the typhoid state results from the direct action of the infectious poisons upon the brain and nervous system. A proper measure is to facilitate all excretion. Another is to endeavor to assist the brain to resist the first attack of the poison. If this can be accomplished, a little later, in a few hours or days, a tolerance has been established and elimination to some extent has happened. The employment of such measures is a forlorn hope; exceptionally success rewards it.

In concluding I will give a brief account of the progress, treatment and issue of a case which illustrates much of what I have said above.

In a house containing two younger children with diphtheria a girl aged twelve and previously well was seized by a pronounced chill with rigors at midnight. In the morning she was blanched and cold; the thermometer registering 103° in the rectum, her pulse being 120, weak and narrow. Her eyes were closed and she was stupid. She was relaxed; her arms lay extended on either side and twitched; her limbs remained motionless, but for their twitching, wherever they were placed. Her face twitched like that of chorea, her nose looked sharp and pinched and about the alæ, on her lip and cheeks, the skin was white and bloodless. She breathed irregularly and shallowly. She protruded her tongue slowly and it

trembled. The conjunctival vessels were prominent and the secretion between the lids plentiful and gluey. The pupils were of normal size but sluggish. She presented a light film upon both tonsils and her cervical glands were enlarged. Twenty-four hours later she was not so white and cold. Her temperature was 103°, her pulse 120 and fuller. She was vomiting, had had hiccup and four involuntary watery discharges. She had been twice catheterized and presented an active and noisy peristalsis with tympanites. She was more stupid; she no longer protruded her tongue. Her lips were dry, brown and cracked. She heard nothing; she evidently saw nothing; her eyes were wide open, glassy, and fixed intently upon some far distant place; they looked past every one and everything the room contained. Her lips trembled and her hands quaked. Slowly but wildly, with inco-ordinate jerks, her hands reached for objects in the air, then fell and tremblingly searched on the bed-clothes for what they could not find. But her eyes never followed nor noted her hands; they were engaged too intently in staring at far-away places, at objects they could not reach. She constantly murmured undistinguishable words and frequently cried loudly for her mother. Her mother was constantly with her and constantly assured her of her presence, but she could not appreciate it. Her hands would convulsively clutch her mother or anything they happened to touch, immediately throw off the object and then resume their vain and endless search for objects in the air and on the bed-clothes. On the third day her eyes were closed, and her hands rested from their fruitless search. They were still; that is to say they lay in one place, but the subsultus still twitched them. She could again protrude her tongue; she could be made to hear, and she could be made to appreciate her mother's presence. On the fourth day intelligence was in her eyes—the typhoid state had terminated. Her treatment consisted of one-eighth grain and following this one-sixteenth grain of morphia given every third hour, and maintaining the hyperactivity of the skin by means of hot bottles and wet towels under her blankets. She now presented a collar of brawn from ear to ear and a leathery membrane on both tonsils. Treatment for diphtheria was now begun and in two weeks she was a convalescent.

INOSITE IN THE URINE.¹

BY WILLIAM S. DISBROW, M. D.,
NEWARK, N. J.

The importance of the chemical examination of the urinary secretion in cases of suspected diabetes is recognized by all to be worthy of the closest attention, and any improvement or discovery made in this line of inquiry, becomes of more or less value in the recognition of glucose. In the examinations made in reference to direct treatment, and in insurance cases, where the early diagnosis of incipient mellitaria is desirable, it is necessary to know definitely whether a specimen of urine contains this sugar or not, and it is my desire to show where I made a mistake, and what I believe was the source of my trouble, and to explain a doubtful reaction. I wish it understood that the large number of compounds usually acknowledged to react in the presence of Fehling's solution, have all been noted, except the greenish coloration, which Dr. Squibb claims is due to sugar, and that this reaction is due to another of the same group of carbo-hydrates.

Of course it is expected that any one can test for sugar; and any one who fails to recognize a diabetic from a non-diabetic urine would be considered very shallow.

All this I admit; but when glucose is in minute quantity, and the reaction is questionable, the answering of the question is not always an easy one.

I consider that standard Fehling Solution made by Dr. Squibb is the most reliable test we have; but I take exception to the statement that the greenish coloration which is frequently found in the use of this reagent, is due to one per cent. of glucose, and I believe the remark has led to great injustice to the parties interested. This I think can be proven by the testimony of others who have investigated the subject, and, in a letter which I received from Dr. Squibb some time ago, bearing on this subject, he stated that this reaction may be due to some other constituent, and recommended the fermentation of Doremus.

In specimens of urine which were known to be free from glucose I have often seen this reaction; the olive green coloration which upon subsidence leaves the supernatant liquid the original blue with no reduc-

tion of the copper salt. This reaction was stated to have been indicative of glucose in the following incident, which was the starting point in my backsiding from the infallibility of this test.

About one year ago I received from one of the largest insurance companies of this city, a specimen of urine with the request to carefully examine,—particularly for sugar. This was done with a negative result, but to my chagrin I was informed by the medical director, who is a man of superior attainments and of large experience, that he had examined it previous to sending it to me, and found that it contained sugar. Feeling certain that I was still right, I requested that it be sent to New York to be analyzed by some one whose report would be authoritative. It was sent to the Carnegie Laboratory, whose report was negative—it contained no glucose. The Doctor then asked me what it was that gave the reaction? I remarked, that I did not know; but I have, to my satisfaction, since found out.

Looking up the subject, I find that this claimed the attention of Rolfe; but it was Oliver who first stated that it might be muscle sugar or inosite.

Tyson questioned the reliability of the reaction, as not being sufficiently distinctive, and by the introduction of his method, which isolates in the crystalline form the compound, he proved that the supposition of Oliver was correct.

A few remarks on the chemistry of inosite will not be out of place; so I shall in a few lines describe its most important features.

Inosite, Phaseomannite, or Muscle Sugar, $C_6H_{12}O_6 \cdot 2H_2O$. This saccharine body is found in the muscular portions of the body, in the heart, brain, spleen, lungs, and kidneys, in hydrated tumors, in normal and pathological urine, and in the vegetable kingdom, particularly in the Natural Order: Leguminosæ, such as peas, beans, also in some representatives of our *materia-medica*: digitalis and taraxicum. It forms large monoclinic crystals, generally in rosettes, soluble in water, insoluble in ether and alcohol. It is unfermentable, except in the presence of decomposing membranes, cheese and chalk, when lactous fermentation takes place with the formation of lactic, butyric, and carbonic acids. It is not decomposed by caustic alkalies, or weak acids, has no polarizing effect on light, does not reduce metallic oxides, nor change color with potassic hydrate, and does not reduce cupric sulphate

¹ Read at the Practitioners' Club, Oct. 7, 1889.

in potassic hydrate; but is precipitated from solution by basic plumbic acetate and ammonic hydrate. If heated with a solution of cupric tartrate in potassic hydrate, no reduction follows as in the case of glucose; but a greenish solution results, which after a time precipitates, leaving the supernatant liquid the original blue color. If this be filtered the same reaction takes place. This last reaction, Tyson, in "Pepper's System," now claims is sufficient for its identification for clinical purposes. It can be readily made for purposes of study by the process of Vohl, who makes a watery extract of French beans, evaporates, precipitates, by alcohol, dissolves in water, and allows it to crystallize.

The significance—if there be any—of inosite in the urinary secretion, is not understood, it having been found under such varied circumstances in health and disease. Vohl called attention to it first, in diabetes insipidus; and here it had gradually displaced glucose, thus converting a mellituria into a inosturia; he also called attention to the increased quantity of this sugar, after the ingestion of large quantities of water. Senator, by its discovery, was led to believe that the diuretic action of this sugar might be held responsible for the very large excretion of urine in the same disease, but questioned the beautiful theory by uncertainty of its presence at all times. Strauss pointed out that on the flushing the kidneys of healthy subjects, with large quantities of water, this sugar could be found.

In diabetes, Neukoum and Gallois report this sugar in combination with glucose. Kutz failed to find it in persons who had been fed on a leguminous diet, which is contrary to my experience, for I have noticed it in a number of such, which had been carefully examined, but not in all. In various brain troubles, and in Bright's disease, the urine has also been found to contain this interesting compound. Leboulbain, Loomis, and Tyson consider the presence of inosite, in urines which contain glucose, and its increase as the grape sugar decreased, as a favorable prognostic.

Reviewing this subject, the following are the points to which I call attention:

1. That the greenish coloration and precipitate, often found in the examination of wine for glucose by Fehling solution, and by some good authorities said to be due to this sugar, is now known to be open to a different interpretation.

2. The substance which gives this reaction has been shown to be inosite or muscle sugar, another of the same group of sugars, which has been found in the human body under varied circumstances of health and disease.

3. The reduction of cupric oxide is necessary as a definite reaction for the determination of glucose, while this reaction never occurs in the presence of inosite.

4. The importance of the presence of glucose, as an indicator of disease, and the non-importance of inosite, makes it absolutely necessary that they should be differentiated at all times.

OLIVE OIL IN THE TREATMENT OF GALL-STONES.

BY THOMAS J. MAYS, M. D.

The formation of gall-stones occurs more frequently than most physicians suppose. It results in much pain, and is sometimes followed by fatal consequences. As, according to my experience, it is not very successfully treated, I conceive that anything which will tend to throw the least light on the therapeutics of this disease will be welcome, and therefore offer the following observations for the consideration of this Society, trusting that its members will see fit to make it a subject for special therapeutic investigation, in order to find out whether what I believe to be true of the action of sweet oil in this disease is based on a true or a false foundation.

Gall-stones are formed in consequence of faulty chemical change in the bile within the passages of the liver. These concretions form in masses which vary largely in number, size, and chemical composition. They may frequent any portion of the biliary passages, but are usually found in the gall bladder. By occluding the hepatic ducts they interfere with the passage of bile, cause it to be absorbed by the hepatic circulation, and in this way bring on the familiar jaundice which accompanies the disease, and by becoming impacted they may set up inflammation, degeneration, suppuration, and perforation in neighboring tissues.

The chief points of interest in the diagnosis of the disease are: The seat and nature of the pain, and the mode of its occurrence. It is by no means certain that a positive diagnosis can be made in all cases.

Nov.

DIPHT

A patient may come complaining of a dull, heavy pain in the right hypochondrium, with a history of occasional paroxysms of pain in the same region, with a slight jaundice, indicated by a yellow tinge of the conjunctiva, and with an occasional shivering and fever—the indications are that he is suffering from biliary calculi. But if the patient is suddenly attacked with severe and agonizing pain in the same region, the centre of which is located directly over the seat of the gall bladder, and radiates to the right shoulder; and especially if the gall bladder is felt to be distended, and this without any elevation of temperature, the diagnosis of biliary calculi is almost certain. Fever is not invariably absent. Sometimes the premonitory symptoms of gall-stones simulate fever-and-ague on account of the occurrence of more or less marked rigors, together with a slight rise in temperature; and indeed it may be mistaken for the latter disease until its more active phenomena appear.

Speaking from my earlier personal experience in the treatment of this disease, I must confess that it was attended with the most discouraging results until I learned of the efficacy of sweet oil from my friend, Dr. Edward R. Mayer, of Wilkesbarre, Pa., several years ago; and I am glad to state that the hopes which were inspired by his accounts of the remedy have not been disappointed.

The investigations of Dr. Rosenberg are, so far as I know, the only ones in regard to its physiological action which have been made. They are described in a preliminary publication which appeared in *Fortschritte der Medicin*, in 1889. He established biliary fistulae in dogs and observed that the administration of olive oil markedly increased the quantity of bile secreted; while at the same time it diminished its consistency.

The following cases illustrate the value of this agent. Mrs. A., 40 years old, had a sharp attack of pain in the right hypochondrium, December 29, 1889. This was preceded by rigor, fever and night sweats; and was followed by decided jaundice. Not having seen her during the attack, nor having had a similar pain before, I mistook her disease for malaria, and treated her with quinia, calomel, sodium, phosphate, acids, alkalies, hydrastine, podophyllin, leptandrine, etc., until February 11, when she felt very well, the jaundice had disappeared, the urine—which was loaded with biliary material—cleared up, the stools were of a normal

color, and I ceased attending her. On the eighteenth of the same month I was called to see her again, and found her suffering with an intense pain in the right hypochondrium, with an evening temperature 100° , and the appearance of a tumor in the right hypochondrium. The pain was but imperfectly controlled by morphine and atropine. I at once began to give her sweet oil in dessert-spoonful doses every four hours, and she improved from that time on, and has never had an attack since. In a few days after the beginning of the oil the enlarged gall bladder subsided, and it has given no trouble since.

A second case gave equally striking results. I was called to see Mrs. H., 45 years old, on the night of Aug. 10, 1889. I found her writhing in pain, which was indefinitely located over the whole abdominal region, but whose maximum intensity seemed to be confined more to the right side of the stomach. Large doses of morphine subdued her suffering somewhat. On closer inquiry I learned that the paroxysms had come on periodically for a number of years, and that she had been advised by her physicians to go abroad—which she did and remained there for several years. She was not entirely free from these attacks while there. She had returned only three weeks before this attack came on. I found on examination a perceptible dulness and swelling in the right hypochondrium. Sweet oil was prescribed in dessert-spoonful doses every three hours, and this was followed by the most satisfactory results. In less than five days she said she was an entirely different woman. Her abdomen which was always hard, tense, and painful, became soft, her stool became natural in color and she has had not even an approach to an attack since.

The third case is that of a young man about 20 years old, who came to me with a tinge of jaundice in his conjunctiva and skin, and with an ill-defined history of bilious colic during the previous three months. I placed him on sweet oil, and he has been free from his trouble since.

—DR. LAUDER BRUNTON, F. R. S., has accepted the offer of the Nizam of Hyderabad to proceed to India to repeat the experiments of the Hyderabad Chloroform Commission, and to further investigate the subject, for which purpose His Highness placed the sum of £1,000 at his disposal.

Nov. 9, 1889.

DIPHTHERIA FOLLOWING SCARLET FEVER.

BY L. S. WALTON, M. D.,
TULLYTOWN, PA.

On the morning of July 29, 1889, I was called to see a child, fifteen months old. I found the child had been vomiting freely, and was covered with a distinct scarlet rash, with a temperature of about 102° . On the following morning I found the child somewhat improved; but another member of the family, a little boy, seven years old, was suffering with all the symptoms which characterize a typical case of scarlet fever. The former case terminated in recovery in a few days, but the second child passed through a severe attack of the scarlet fever, and by the end of the second week the temperature had declined to almost normal, the tonsils had resumed their natural appearance, and desquamation had taken place freely, all symptoms pointing to a favorable termination.

On the morning of the fifteenth day, I found the temperature 104° , the pulse 104; and the tonsils were enormously swollen and covered with diphtheritic membrane. The case now presented a very unfavorable prognosis. I prescribed the following mixture:

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| B. Tinct. Ferri chloridi | 3 ⁱⁱⁱ |
| Potass. chlorat. | 3 ⁱⁱ |
| Quinie sulph. | 3 ^{ss} |
| Aqua | q. s. ad 3 ^{iv} |
| M. Sig. | One teaspoonful every 2 or 3 hours. |

Locally I applied a strong solution of tannin, with a large camel's hair brush, once every hour. The above remedies were continued throughout the disease, occasionally increasing or diminishing the quinia as indicated. Brandy was also administered freely. As the case progressed the temperature fluctuated between 103° and 104° , until the tenth or twelfth day, when the temperature began to decline. The tonsils began to decrease in size and the diphtheritic deposit began to soften, and by the end of the fourth or the beginning of the fifth week convalescence was established. Notwithstanding the patient passed through two of the most dreaded of all diseases, a complete and perfect recovery followed, leaving no trace of renal nor cardiac trouble. This case is of interest from a therapeutic point of view. Having used many of the new remedies that have been suggested in the treatment of diphtheria, I have found

nothing as satisfactory as the above described remedies.

REPORTS OF CLINICS.

BELLEVUE HOSPITAL.

MEDICAL CLINIC—PROF. BEVERLY ROBINSON.

Stricture of the *Œsophagus*.

Case I.—A man, 43 years old, single, a tailor, native of Germany. He has been a hard drinker. Twenty years ago he had a hard chancery, followed by secondary symptoms, for which he was under treatment in Germany for five years. Since that time he has been treated at the different Dispensaries for rosaceous acne, rosacea, chronic pharyngitis and nasal catarrh, and gastric catarrh. He entered the Charity Hospital for trouble in the throat. For one year he has suffered from painful and difficult swallowing and inability to swallow solid food unless it was chopped very fine. He says he cannot talk for any length of time without losing his voice and being unable to speak above a whisper. He occasionally vomits his food, if taken in large pieces, immediately after ingestion. On no occasion has he vomited blood, coffee-ground or frothy material. He has lost very little flesh and suffers from no other symptoms.

The patient is given a glass of water to test his ability to swallow. He pauses between each mouthful and forcibly bears down as the liquid passes from his mouth. None is regurgitated. There is no coughing or choking. He places his hand at a point just below the cricoid cartilage, to locate the spot where he believes there is obstruction, and says he has to "press down" to force his food beyond this point.

His dysphagia is growing worse, and his condition is a serious one. Suffice it to say, thorough examination into his history proves him to be syphilitic. This being granted, what other condition have we here? First, has he laryngeal trouble, such as tubercular, syphilitic or cancerous? Probably not, from the fact that he easily swallows liquid and has difficulty with solid food. The reverse is the rule in laryngeal trouble. It is by no means a certain sign, however; but a very strong inference. And, besides, choking and coughing is absent. Further careful laryngoscopic examination is negative. Next,

may there be paralysis of the pharynx? The patient shows no palsy, and gives no symptoms of mental trouble, or paresis, and inspection shows that the act of swallowing is sufficiently vigorous. Examination of the throat is also negative.

Has he then stricture of the oesophagus? And is it spasmotic, traumatic, carcinomatous, or syphilitic? It is not spasmotic. On questioning him, he says deglutition is not at all affected by nervous influences; and besides this is a condition almost always found in the female. Furthermore the bougie settles this fact. The patient has never swallowed any caustic fluid nor received any injury from lodgment of wounding substance in gullet, and so does not give a history of simple traumatic stricture. It is probably not carcinomatous, because he has never spat blood, and manipulation with the bougie is not followed by blood, and there has been no vomiting of froth or frothy matters. Examination does not reveal any tumor or enlargement in the neck.

On passing a medium sized bougie it is arrested at about eight inches from the teeth, a point corresponding to lower border of cricoid cartilage. On using a smaller instrument, then a still smaller one, both are arrested at the same spot. It has been determined at a previous examination that the stricture is about one inch in length and is dilatable, and the patient experienced some improvement after the operation.

The diagnosis of probable syphilitic stricture is made; may be from a gumma, may be from the scars of old ulcerations.

The treatment should be the daily passage of bougies, and instruction of the patient to pass them himself later on every second or third day, and together with the internal administration of mercury and iodide of potash. Thus the man may live for many years.

I advise you to study every case by itself, remembering that you may in practice find diseases which differ much from the form described in the text-books. Each patient may present a peculiar aspect of disease; I have never seen two patients and two diseases exactly alike.

Brain Syphilis.

Case II.—A man, 38 years old, widowed, a native of United States, and a carpenter. He denies that he ever had a venereal sore. Eleven and one-half years ago he had a suppurating bubo, and eleven years ago an

eruption all over the body, but no other symptoms that might be called "secondary." He was well up to six years ago, when he had this attack. He went to bed well and awoke next morning with paralysis of the right side and aphasia. He does not remember to have lost consciousness. He had no convulsions. He was under treatment for one year; and then went to work. Two years after the first attack he had another—this time on the left side; and similar to first stroke. He regained his speech after six weeks and his power of movement in five months.

Examination shows some weakness on the left side and decided loss of power on the right side of the face and limbs, with dragging of the right leg and a characteristic hemiplegic gait. His sensation is good; his mind clear; and his appetite is good. His bowels are constipated; his urine has a specific gravity of 1.008 and shows nothing abnormal.

He has been under treatment with iodide of potash in increasing doses. This is to be continued, together with strychnine, electricity and nutritious diet. The differential diagnosis between embolism, thrombosis, hemorrhage, and the existence of arteritis is impossible. Certain points in the case lead us to one view, some to another; but we cannot hold any one view with positiveness. The course of the malady and the absence of loss of consciousness would make me favor the idea of embolism. I saw a case a few days ago in a private patient who was stricken in what appeared to be an apoplectic attack in Jersey City and was removed to the City Hospital. He was suffering from palsy of one side and convulsions of the other. Knowing him to be syphilitic, I so informed his attending physician. I learn to-day that the patient is rapidly improving under anti-syphilitic treatment.

Dilatation of Heart.

Case III.—A man, 40 years old, a miller by occupation for the past thirteen years. He has always worked at night. He does not drink, but is a heavy smoker. Has always enjoyed good health, and has gained fifty-six pounds in weight in the last few years. Three months ago he had a sudden attack of "gonesness" over the region of heart. He grew pale and almost fell; and thought he was going to die; but he did not lose consciousness. He had no vomiting or headache, no disturbance of vision,

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Nov. 9, 1889.

Foreign Correspondence.

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He had vertigo for some minutes and felt weak for the rest of the day. He had another attack two weeks ago and another to-day. He has not been at work for some time, by advice; but he feels able to go, and says he seems well. He has no palpitation or dyspnea.

Examination reveals a blowing murmur at the apex of the heart, and shows the heart sounds to be very indistinct and the heart's action to be very weak.

The patient is suffering from dilated heart, with probably one of two conditions: either a fatty degeneration, or a fibrous myo-carditis, which cannot be learned during his life.

The prognosis is decidedly bad. Of this I am very sure. He may drop dead at any moment. In most cases it is best not to acquaint the patient with this fact; for if we do the dread hangs over him and perhaps may shorten his life. But relatives should be informed fully, and the patient should be made to stop his business and give up bad habits. In this case smoking must be stopped—gradually, not suddenly; and a course of digitalis, iron and compound tincture of cinchona promises the most.

FOREIGN CORRESPONDENCE.

LETTER FROM BERNE.

O'Dwyer's Intubation in Acute Laryngeal Stenosis.—The Influence of General Massage on the Composition of Urine.—The Effects of Abdominal Massage on Assimilation and Metabolism.—Abdominal and Lumbar Massage as a Genuine Diuretic.

BERNE, September 20, 1889.

Dr. O. Guyer, house physician to the Hospital for Children, in Zurich, reports twenty-seven cases of diphtheria in which O'Dwyer's intubation was performed on account of acute laryngeal obstruction, with thirteen (48 per cent.) recoveries and fourteen (52 per cent.) deaths. In all of the cases, the stenosis was so great that the only chance for saving the patient's life was in performing either tracheotomy or incubation of the larynx. The age of those that recovered varied between eight months and seven years, six patients being less than four years old. The age of the children that died ranged between one and nine years, etc. As a rule, the tube can be safely and

seven being under four years of age. In eight of the fourteen fatal cases, tracheotomy was performed after intubation had failed. In eleven of the fourteen, death was caused by extension of the morbid process to bronchi; in two by supervening pneumonia, and in one by consecutive nephritis developing after the child had recovered from diphtheria. In all the fatal cases, cloudy swelling of the renal epithelium was found at the autopsy; in none could any injury to the larynx or trachea by intubation be detected. Pointing to the results (which are even better than those obtained by Drs. Dillon Browne and Francis Huber, whose respective series show only 27 and 40 per cent. of recoveries—*vide* the MEDICAL AND SURGICAL REPORTER, April 27, 1889, p. 516, and Feb. 2, p. 146), Dr. Guyer emphatically states that "Dr. O'Dwyer has done a great service to suffering humanity by introducing his method which, most decidedly, constitutes an essential advance in the treatment of laryngeal obstruction." True, he does not expect that intubation will ever supersede tracheotomy altogether, but he firmly believes that the former may limit the necessity for the performance of the cutting operation. Hence he insists that the tracheotomy bag should invariably contain all the intubation appliances. According to the author's personal experience, intubation may sometimes fail to bring relief to the obstruction where the cause of the latter lies above the false vocal cords, as is the case when there exists an intense swelling of the ary-epiglottic folds or of the tonsils and soft palate, accompanied by nasal obstruction. In the presence of such conditions, tracheotomy may yet be successful, after intubation has failed to give relief. Further, in exceptional cases tracheotomy may afford the only means for saving the child's life by a direct aspiration of bronchial pseudomembranes. Hence, the author lays down the following general rule: Given a case of extreme acute laryngeal stenosis, perform intubation at once; if no relief follows within a reasonable time, and if the symptoms point to bronchial diphtheria, do tracheotomy. Speaking of advantages of intubation, in comparison with tracheotomy, Dr. Guyer lays stress on its bloodlessness, simplicity (in regard to both the performance and the after treatment), its complete freedom from such risks as septic infection or consecutive hemorrhage, etc. As a rule, the tube can be safely and

conveniently removed from the child's larynx on the fifth or sixth day.

The author's statements are fully endorsed by a colleague of his, Dr. W. von Muralf, the Chief of the Zurich Diphtheritic Station for children.

In order to study the influence produced by massage on the systemic metabolism in healthy man, Dr. H. Keller, of Rheinfelden, has carried out a series of experiments on himself. His daily dietary consisted of 500 grammes of chopped meat (tenderloin), 500 grammes of unsalted white bread, 100 of fresh butter, 2 of salt and 1,500 of water. Massage of the abdomen and all four limbs was performed daily for three-quarters of an hour by Dr. Mueller. The urine (but neither feces nor the food) was analyzed. The author has arrived at the following conclusions:

1. The bodily weight remained unaltered.
2. Massage does not possess any diuretic action (in the old-fashioned sense that it does not increase the amount of urine voided).
3. But it gives rise to an increased excretion of nitrogen. This, however, should be attributed, not to any increase in the decomposition of proteids, but simply to an intensified washing out of nitrogen from tissues in virtue of massage stimulating the circulation of blood and lymph.
4. The excretion is correspondingly augmented.
5. The elimination of chlorides and phosphoric acid steadily increases from day to day; and this must also be explained in the way indicated above.
6. The excretion of lime is, on the whole, similarly augmented, but is subject to considerable daily variations.
7. Therefore, massage of the whole body manifests a distinct influence on the chemical composition of the urine, increasing the elimination of nitrogen, sulphur, phosphorus, chlorin and calcium compounds.
8. The rise should be attributed, on one side, to increased absorption from the digestive tract, and, on the other, to increased energy of the metabolic processes. The first is induced by the mechanical action of massage on the abdomen; the second by the stimulating effects of massage on cell-activity, and by its acceleration of the blood supply as well as the reflux of the blood and lymph.

An important contribution to the biology of massage has been recently published by Dr. Boris I. Kianovsky, house physician to Professor V. A. Manassein's clinic, in St. Petersburg. To elucidate the effects of abdominal massage on the assimilation of

nitrogen and fats of food, and on the nitrogenous metabolism, he has undertaken nine most careful experiments, each of from 12 to 18 days' duration, on as many healthy subjects—himself and 8 medical students. As in all Russian experimental researches concerning the metamorphosis, the systemic changes were invariably determined by chemical analysis of the urine, the feces and every food-article ingested (and not of the urine alone, as in Dr. Keller's case), because a correct insight into the organic processes in question can be obtained in that way only. The essential results obtained by Dr. Kianovsky may be summarized briefly as follows:

1. The assimilation of nitrogenous constituents of food invariably improves under the influence of abdominal massage, the increase varying from 1.4 to 5.762 per cent.
2. The assimilation of fats is also augmented, at a rate ranging from 0.657 to 3.242 per cent.
3. The nitrogenous metamorphosis rises from 0.6 to 10.9 per cent.
4. All these facts may be accounted for in this way. Abdominal massage improves the muscular and nervous tone of the body in general, and of the abdomen especially. It produces a stimulating action on the systemic circulation, especially in the abdominal cavity, as well as on the gastro-intestinal tract and other abdominal organs. This leads to an increase in the secretion of all digestive juices, and in intestinal peristalsis, the general result being better absorption and a better assimilation.
5. Appetite invariably improves.
6. Notwithstanding the increase in the nitrogenous metabolism, the body's weight as a rule invariably rises.
7. The *seances* are invariably followed by a pleasant sensation of wholesome fatigue and drowsiness.
8. In some persons, an incomplete erection of the penis occurs during the *stance*, and disappears shortly after it. In six out of nine persons the *seances* produce a desire to pass urine. Dr. Kianovsky adds that thoracic massage, when performed during attacks of bronchial asthma, shows a distinctly sedative effect on the symptoms; and that general massage affords a useful adjuvant means in the treatment of poisoning by morphium.

Another able and substantial contribution to our knowledge concerning the biological effects of the mechanical method in question has been lately brought forward by another house physician to Professor Manassein's clinic, namely, Dr. Alexander A.

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Polubinsky, whose investigations throw some light on the influence of abdominal and lumbar massage on the action of the kidneys. As far as the lumbar region is concerned, the manipulations consisted in circular, longitudinal and transverse (grasping) and pretty energetic frictions from the angle of the scapular to the buttocks. The abdominal massage was limited to *effleurage*, *massage à friction*, and *pétrissage* along the course of the colon. The *séances*, each of one-half hour's duration, were repeated once or twice daily. The number of persons experimented upon was ten, two of them being perfectly healthy, four neurasthenic, three convalescent from sciatica or pneumonia, and one suffering from bronchitis. The outcome of Dr. Polubinsky's observations is exceedingly interesting. He has found that: 1. Abdominal massage very considerably augments the amount of the urine passed by the patient during the next four hours—in fact the four hour quantity of urine sometimes is three times as large as the daily amount in a non-massage day in the same person, all other conditions being equal. 2. At the same time it very markedly raises the proportion of solid constituents, urea and total nitrogen of the urine closely tally with the statement of Drs. Mary Putnam and V. S. White, who similarly observed an increased elimination of urea in the urine voided during four hours after the sitting of general massage. 3. As to lumbar massage, it apparently does not show any marked influence upon the quantity of the urine, but, on the other hand, it very considerably increases the amount of urea and total nitrogen in the urine, sometimes even to a larger extent than abdominal massage does. This increase, however, proceeds very gradually and is still marked in the urine voided many hours after a *séance*. 4. In view of these facts lumbar and abdominal massage may be justly regarded as a "genuine diuretic" measure and may be employed as such.

Under the denomination of a "genuine diuretic," the author, following Professor Koenigstein's teachings, understands, "such means as can eliminate from the system an increased (comparatively with the supply) percentage of all constituents of the urine, and not of water alone, without simultaneously decreasing the pulmonary and cutaneous losses." As to the latter, they are even increased by massage, as Dr. Schubert's researches have unmistakably

proved and explained in his *Inaugural Dissertation*, St. Petersburg, 1887. Dr. Polubinsky's highly instructive paper may be found *in extenso* in the *Vratch*, No. 22, 1889.

VALERIUS IDELSON.

PERISCOPE.

Hygienic Reform in Spain.

At a recent meeting of the Sociedad Española de Higiene, the President, Señor Martinez Pacheco, bewailed the apathy both of the Government and of the public in Spain with respect to sanitation. He mentioned several parts of the country in which malaria still prevailed, and others in which pellagra and leprosy were extending their ravages. The Society has formulated an appeal to the authorities, calling for the establishment of a public system of disinfection in every town of any importance, and the rigorous enforcement of the measures for that purpose approved of by the Congress of Hygiene held at Vienna. It was also urged that a transport service should be organized in every town for the removal to hospital of persons suffering with contagious disease. The Society further asked for the establishment of a proper drainage system in towns; that latrines and cesspools be abolished; and that every house be provided with drains properly trapped, and with pipes disconnected from the sewers. Other desirable reforms are indicated, and it evidently will not be the fault of the Society of Hygiene if a sanitary millennium is not soon inaugurated in Spain. We fear, however, that it will take the Society a long time to educate public opinion in that romantic but unsavory country up to its own level.—*British Med. Journal*, July 6, 1889.

Opening Buboës.

Dr. J. P. H. Boileau states in a letter to the *British Med. Journal*, July 6, 1889, that the best method of opening a bubo is a matter of much greater importance than at first sight appears, and especially to the military surgeon, who has so many of them to treat. He believes that a very considerable reduction of his "constantly sick" would be the result of a procedure different from that which now prevails.

It is now, he says, some four and twenty years since he abandoned the free incision by which he was taught to open a bubo, a method of opening which is still very generally adopted, apparently orthodox, and perhaps, in civil life, necessary. For he has many years invariably opened a bubo by a mere puncture with a narrow-bladed bistoury, and he is so very well satisfied with it that he intends to continue the practice. By adopting this method the most odious spectacle, "an open bubo," is avoided, as well as the reproach of a protracted cure; but not in all cases by any means, for sinuses will form that must be opened up, and the consequence of neglect, or a vitiated state of constitution, must be dealt with. It is necessary to observe that to obtain the best results a bubo should be opened at the proper time; not too soon before a sufficiency of morbid deposit has broken down, nor too late when the vitality of the tissues may have become impaired. The experienced operator chooses the right time, which is probably a very few days after the presence of pus has been diagnosed. The small opening made by the bistoury will often be found closed the following day; it may be reopened by a blunt-pointed probe if necessary. The puncture, he says, is much less painful than the free incision, and it of course has the advantage of leaving but a very small mark, whilst it has no disadvantage, as it can at any time be converted into as long an incision as may be thought necessary. He is certain that the opening of a bubo by a free incision, instead of by puncture, often extends the duration of a case from days to weeks, or from weeks to months.

Shuttle Pulse.

Dr. C. H. Hughes in the *St. Louis Med. and Surg. Journal*, Oct., 1889, says:

There is a peculiar pulse which I have sometimes felt but never without a shudder, when felt in the radials of those whom I have loved—never without grave prognostic impression whenever perceived in any patient. Have you ever felt it, reader, and if you have, what has it signified to you? I mean the shuttle pulse, as I would call it; a pulse in which the pulse wave passes under your finger as if it were floating something solid as well as fluid—that something passes along the blood current under your finger like the weaver's shuttle through the loom.

I have felt it in cases only where the blood was hydramic and a local rheumatic inflammation existed or had recently existed within the heart.

I have called it the "shuttle" pulse because I can liken it to nothing else and because the impression it makes suggests the name. Have you felt it under these circumstances, or any other, and do you know a better name for it? If you have ever felt this pulse, did you ever know of a patient recovering after its appearance? Did you ever know a patient after its appearance to escape the consequences of embolic closure of vessels? To me it is the pulse of fibrinous coagula going the rounds of the circulation. Its portent has ever been evil. It is a pulse of dark prognosis and painful memories—the pulse of impending death in part or whole. I think I have never known a patient to live after such a pulse has been detected. It is the pulse of fatal rheumatic endocarditis or endo arteritis and its sequent and associate anaemia and emboli.

Angina Pectoris Caused by Compression of the Sympathetic Nerve.

From the majority of dissections, it has been found that the cause of angina pectoris is in all probability an irritation of one of the three nerves which assist in respiration: the phrenic, the vagus, and the sympathetic nerve; and, as a rule, the seat of the trouble is in the thorax. An exception to this rule was observed in the following case, which is reported in the *Deutsche Medizinal Zeitung* for August 1, by Dr. Humbert Mollière.

The patient, a man, 59 years old, who for ten years had been troubled with a cough, and two months before had had profuse diarrhoea with pain in the abdomen, and was greatly emaciated. In conjunction with the cough, he was also troubled by frequent and long-continued attacks of angina pectoris of a most severe form. Upon physical examination he was found to be suffering from bronchial catarrh, but no abnormal condition of the abdomen was found. For the next few days the attacks became much more frequent, and the patient rapidly lost strength and finally succumbed while suffering from an acute attack of the angina, in spite of all that was done to relieve his sufferings.

At the autopsy, it was found that the mesenteric and the prevertebral nerve

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ganglions had undergone cancerous degeneration; and that portion of the sympathetic nerve between the stomach and the pancreas was surrounded and compressed by a carcinomatous mass of lymphatic glands.

Emphysema was found in both lungs, as well as secondary carcinomatous nodules. The bronchial and pulmonary nerve ganglia were entirely intact, the ends of the vagus and phrenic nerves extended to the solar plexus. This last was compressed in such a way, that it was undoubtedly from this cause that the angina had proceeded. It is most probable also that in an analogous manner an irritation of the ends of the sympathetic nerve, which are in the mucous membrane of the bowels, would also give rise to angina pectoris.

Death After Taking Nitrous Oxide.

A painful death occurred in a dentist's house in Edinburgh recently. An old lady, of over 75, visited a dentist for the purpose of having a tooth removed for disease of the antrum. The operation was successfully conducted with the aid of nitrous oxide, but, while the cavity was being treated, the patient was observed to lapse into a state of unconsciousness. All efforts at resuscitation proved ineffectual and, before further medical advice could be obtained, death had resulted. It appears that the patient had suffered previously from weak cardiac action.—*British Medical Journal*, Oct. 12, 1889.

Trinitrin in the Treatment of Arterio-Sclerosis.

Huchard recommends a one per cent. alcoholic solution of nitroglycerine in the cases of arterio-sclerosis in which the preparations of iodine are not well borne. The average dose in which the remedy can be given, without the fear of bad secondary effects, is from ten to twelve drops a day, in five or six portions. The dose of twenty drops should not be exceeded, as with this quantity decided supra-orbital pains occur frequently. In order to prevent the patient from becoming accustomed to the remedy, Huchard allows the patients to take the preparations of iodine for twenty days each month, and trinitrin for the remaining ten days. If it is desired to administer the trinitrin in solution, a mixture can be made

of thirty drops of a one per cent. solution of nitroglycerine and nine and a half fluid ounces of water, of which from four to eight tablespoonfuls may be given daily. Where a rapid effect seems desirable, as, for example, in angina pectoris, Huchard recommends the subcutaneous injection for two or three syringefuls of the following solution:

| | |
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| Alcoholic solution nitroglycerine (1 per cent.) | 40 drops |
| Distilled water | 150 " |

Iodide of potash can also be combined with trinitrin:

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| Iodide of potash | 5 drachms |
| Solution of nitroglycerine (1 per cent.) | 30 minimis |
| Distilled water | 9½ fl. oz. |
| M. Sig. Two tablespoonfuls daily. | |

—*Wiener med. Presse*, Sept. 15, 1889.

Epidemic Nephritis in Children.

Dr. Stefano Mircoli, of Bologna, according to *Schmid's Jahrbücher*, September 15, 1889, has observed fourteen cases of nephritis occurring epidemically, in the course of two months, in children varying from three to ten years of age. A very fine disease-picture was presented, unassociated with affections of the skin and other organs. It began with high fever, which fell after four or five days; then large albuminuria and tense oedema first appeared. Improvement occurred from the tenth to the fifteenth day, the disease never becoming chronic. Three of the children died. Acute redness and swelling of the cortex of the kidney were found in the case of the first child, which died on the fourth day of the disease. The kidney exhibited, on microscopic examination, the typical appearance of embolic septic nephritis. Coccii lay in heaps in the small vessels, in the glomeruli or in the connective tissues, and in the uriniferous tubules; the epithelium of the latter exhibited corresponding destruction, especially granular. The connective tissue was hypertrophied. In the cases of both the other children which died on the tenth and fifteenth day of the disease respectively—large white kidneys were found at the autopsy, but no coccii. Mircoli thinks they had been present, but had died. Abundant albuminates were found in the uriniferous tubules.

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Some Useful Remedies for Sleeplessness.

The following useful formulæ for the administration of hypnotics were given in a recent number of the *Deutsche med. Wochenschrift*.

- R Amylen. hydrat. grs. cv
 Aquæ destil. f $\frac{3}{2}$ ii
 Ext. Glycyrhizæ 3 iiss
 M. Sig. Half to be taken in the evening before going to sleep.
- R Amylen. hydrat. m $\frac{1}{2}$ lxxv
 Mucil. Acaciaæ f $\frac{3}{2}$ v
 Aquæ destil. f $\frac{3}{2}$ iss
 M. Sig. For a clyster.
- R Chloralis 3 i
 Aquæ destil. f $\frac{3}{2}$ x
 Syr. cort. Aurant. aa f $\frac{3}{2}$ x
 M. Sig. Dose, one to two tablespoonfuls.
- R Chloralis gr. xlv
 Potass. brom. gr. lxxv
 Aquæ destil. f $\frac{3}{2}$ iii
 Syr. Aurantii f $\frac{3}{2}$ iss
 M. Sig. The third part to be taken once, in the evening.
- R Lactucarii gr. ix
 Gum. Acaciaæ f $\frac{3}{2}$ i
 Aquæ destil. q. s. fiat emulsio . . . f $\frac{3}{2}$ vi
 Adde :
 Syr. Aurantii f $\frac{3}{2}$ i
 M. Sig. A tablespoonful every hour.
- R Paraldehyde f $\frac{3}{2}$ i—f $\frac{3}{2}$ iss
 Aquæ destil. f $\frac{3}{2}$ iii
 Syr. simplicis f $\frac{3}{2}$ iiss
 M. Sig. Half to be taken once.
- R Phenacetin gr. viiss—xxiii
 M. Dispense doses tales No. VI.
 Sig. One powder in the evening.
- R Sulphonal gr. xv—xxx
 Divide in 5 equal parts.
 Sig. One powder in *cachets* in evening.
- R Urethan f $\frac{3}{2}$ i
 Aquæ destil. f $\frac{3}{2}$ x
 Syr. Aurantii f $\frac{3}{2}$ v
 M. Sig. To be given in tablespoonful-doses at intervals of one-half to one hour, according to desired effect.

—Wiener med. Presse, August 11, 1889.

The Toxic Effects of Coffee.

In the *Therap. Monatshefte* for March a case is recorded of poisoning with coffee. A strong and vigorous man, in the absence of his wife, prepared for himself some coffee. Ignorant of what quantity to use, he made the infusion very strong, using for the purpose two cupsfuls—about two ounces and

a half of the ground berries. Two hours and a half after drinking the infusion vertigo supervened; this was followed by severe headache and tremors, limited at first to the part, and then becoming generalized. To these symptoms were subsequently added flushing of the face, great palpitation, nausea, and vomiting. A practitioner saw the patient about six hours after the ingestion of the coffee, at which time the most prominent symptom was generalized and intense tremors, especially noticeable in the hands and face, in the latter instance rendering the patient's speech very difficult to comprehend. The face, moreover, was deeply flushed, and the forehead bathed in perspiration. There was much precordial pain, but the heart sounds were normal. Pulse 100, very full and bounding. The patient micturated frequently. Six drachms of bromide of potassium were prescribed in two doses, after which sleep was induced, and the symptoms gradually declined, the man being convalescent in three days.—*Medical Press and Circular*, June 12, 1889.

The French Surgical Congress.

The fourth French Surgical Congress was opened on October 7, 1889, in the amphitheatre of the Faculty of Medicine of Paris, under the presidency of M. Larrey, who succeeded M. Verneuil. About one hundred surgeons, members of the Congress, were present. The President delivered a short address, after which the Secretary-general, Dr. Pozzi, read a list of the names of the officers of the Congress.

Tænicides for Children.

Descroizilles and Duchenne suggests the following formulæ for the administration of tænicides to children (*London Medical Recorder*, June, 1889):

- R Ext. Felicis Maris fl. . . . f $\frac{3}{2}$ ss—f $\frac{3}{2}$ iii
 Ess. Anisi m $\frac{1}{2}$ x
 Aquæ Menth. pip. f $\frac{3}{2}$ ss
 Aquæ Anthemidis f $\frac{3}{2}$ i
 Syrupi,
 Syrupi Aurantii cort. aa . . . f $\frac{3}{2}$ vi
 M.
 R Ext. Felicis Maris fl. f $\frac{3}{2}$ i
 Hydrarg. chlor. mitis gr. vii
 Sacchari f $\frac{3}{2}$ ii
 Gelatine q. s. to make a jelly of a proper consistency.

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THE
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 REPORTER.**

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CHARLES W. DULLES, M.D.,
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When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.

The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

CONTAGIOUSNESS OF LEPROSY.

From time to time during the past year, we have published different communications—abstract or editorial—bearing upon the subject of leprosy, which has been discussed very freely in this time. The readers of the *REPORTER* are aware that in our opinion this disease ought not to be spoken of as contagious in the ordinary acceptation of this term, although it appears possible that it may be "communicable" from one individual to another under peculiar and extremely rare circumstances. It is known, of course, that a certain number of pathologists are strongly convinced that the disease is contagious, but we doubt that the profession in general will fail to notice the great difficulty they find in bringing forward even a very small number of cases to justify this opinion, although leprosy is a disease which

is to be found in almost every part of the world, and if it were contagious in any such sense as are other diseases to which the term is applied, the examples of contagion ought to be numerous and easy to discover.

It is interesting to note that Dr. George Dock, Professor of Pathology in the Texas Medical School, at Galveston, has recently reported two cases of leprosy, which seem to furnish important evidence in this connection. Dr. Dock is a pathologist thoroughly competent to express an opinion on this subject, and it goes for much when he states, after all he has studied in these cases, that "Contact alone, even when intimate and long continued, cannot be a source of danger, and that other factors, as predisposition (of which we know nothing) and solutions of continuity of both bodies, must play the most important part." The cases, which he describes admirably, were remarkable ones. Two men for a period aggregating thirteen years or more, associated with their fellows, and lived in the most intimate relations with their wives and children, and yet, so far, no other case of the disease had been acquired from them.

It seems impossible to determine the important question as to the contagiousness of leprosy in such a way that the conclusion shall be accepted fully, by both contagionists and non-contagionists; but from a purely judicial standpoint, we feel convinced that those who make the most of such evidences as exist that this disease may be conveyed from one individual to another, ought to select some other word to express their belief than that which is applied to the communication of small-pox, scarlet fever, and other diseases of the same kind. This not only is important from a scientific standpoint, but it is also of the greatest importance from a hygienic and social standpoint; for a true knowledge of the nature of this disease would probably prevent great and needless hardships to patients suffering with it, and—as is well understood in this city—might come very opportunely between conscien-

tious and thoroughly competent practitioners of medicine, and an unreasonable and misguided community.

OPEN AIR TREATMENT OF CONSUMPTION.

At the last meeting of the Climatological Association, Dr. Henry J. Bowditch read a most interesting paper on open air travel in the treatment of pulmonary consumption. The text of the paper was based on the history of his consumptive father who succeeded in restoring his shattered health by taking a long journey in a one-horse chaise through New England. When he started on his trip he was very much reduced, and he had hemoptyses before he had traveled twenty-five miles. He was resolute, however, and pushed forward, and after that he had the pleasure of noting an improvement in his health on every succeeding day. He drove for thirty days and during that time passed through one hundred and thirteen towns, journeyed over seven hundred and forty-eight miles of wagon-road, and returned to his home much better than when he left it. Afterwards a permanent cure was effected by walks of one and a half to two miles, taken three times daily during the remaining thirty years of his life. He died at the age of sixty-five, from cancer of the stomach, the apex of one lung showing an old cicatrix, but otherwise both lungs were normal.

This case presents a most instructive lesson to us, inasmuch as it points out at least one method by which consumption may be successfully circumvented. There is no question that pulmonary consumption is a constitutional disease, which, as was suggested in an Editorial in the *REPORTER*, September 7, 1889, can be rationally treated only by economizing the bodily forces—which means a diminution of the outgo, and an increase of the bodily income. The outgo is the waste caused by the fever, loss of flesh, anorexia, insomnia, night-sweats,

and cough. So long as this equals, or outbalances the bodily income derived from the food, air, etc., so long will the patient's condition remain the same, or decline. Exercise is likewise a drain on the bodily resources, and just so long as this fatigues, just that long should the patient be restricted as closely to absolute rest as possible. If Dr. Bowditch's father had chosen to walk, instead of remaining practically quiet in his carriage, as he rode through the country, it is exceedingly doubtful that his mission would have been crowned with the same success. The exercise which brings tone and strength implies the pre-existence of strength, and this if properly used and nourished will grow and accumulate. But the consumptive is in a chronic state of exhaustion, and has no strength, or very little, to spare for exercise. A short walk, a few forced respirations, or swinging of the dumb-bells, will often utterly sap his strength. Whether by instinct, or by conscious effort, it is very clear that Dr. Bowditch's father struck the proper mean in this matter. He waited until he was sufficiently strong to bear physical exercise, and then its application was followed by the happiest results. The wisdom of his course is also approved by the practice now in vogue of treating consumptives in the lying or sitting position in the open air, or of shutting phthisical patients up in a sailing vessel which is bound for a distant port.

Although treatment of this sort is carried on in the open air, we are not disposed to credit all the good that comes from it to fresh air alone. Indeed it is probable that the breathing of a vitiated air is less harmful than is generally believed. The inhabitants of cold countries, like those of Iceland, Greenland, and Lapland, live in crowded underground hovels, and breathe an atmosphere loaded with a filth that is exhaled from the body, yet these people are practically free from pulmonary consumption; while those people who live in the tropics, and who have a bountiful supply of fresh

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air streaming through their houses day and night the whole year round, do not by any means enjoy an immunity from this disease.

While not in the least desiring to underrate the value of good ventilation we cannot help thinking that when stripped of all its paraphernalia the treatment of pulmonary consumption in its most serious stage is not so much a question of physical exercise and pure air as it is one of real physiological rest of both body and mind. A consumptive must be removed from his occupation ; his activity must be bridled ; his habits must be revolutionized ; his fever must be reduced ; his appetite must be restored, and his sleep must become restful. A game of chess, checkers, or whist, the reading of a novel, a ride through the country, the monotony of an ocean voyage, or a trip to the mountain, are all to be reckoned, provided they weary neither body nor soul.

TREATMENT OF TETANUS.

Cases of recovery from tetanus are rare enough to be deserving of careful study, and great interest attaches to the report of such an occurrence in the *Lancet*, Oct. 12, 1889.

The patient was a boy, seven years old, who developed symptoms of tetanus after receiving a burn upon the leg. He had well-marked spasms of the glottis and opisthotonus. The spasms came on very often, and during their continuance the heart beat tremulously and the whole body was bathed in perspiration. A hypodermic injection of $\frac{1}{16}$ grain of salicylate of eserine every three hours, was ordered, and a mixture, containing ten grains of bromide of potassium and half a drachm of syrup of chloral hydrate, in half an ounce of water, was given every three hours, the medicine being given an hour and a half after each injection. The diet was beef tea and milk. Under this treatment the patient did well, getting a good deal of sleep for forty-eight hours, when the dose of eserine was increased to $\frac{1}{8}$ grain. Nine days later the use of the

bromide and chloral mixture was discontinued and the eserine was injected only three times a day. At this time the rigidity of his abdomen still continued, but he could open his mouth widely. There were a few moist râles at the bases of both lungs. The next day the risus and trismus were almost gone ; the temperature was 98.6° ; the pulse 86 ; the respiration 19. Ten days later the injections of eserine were discontinued.

The time during which this treatment continued was over three weeks, and the cure seems to have been brought about by the prolonged use of the remedies : Eserine with chloral and bromide of potash for eleven days, and eserine alone for twelve days more.

Mr. J. R. Raywood, who had the patient under his care, attaches the greatest importance to the use of the eserine. Its action, he says, was most marked ; for although the bromide and chloral may have assisted to recovery, yet these drugs had no direct control over the spasms. Whenever a dose of eserine was omitted the muscular spasms were stronger and more frequent, and no relapse occurred when the bromide and chloral were discontinued.

The management of cases of tetanus is so troublesome and usually so unsuccessful that it is pleasant to be able to record even single cases in which recovery has taken place. Our readers are quite aware that the remedies used in the case just described are not new, and they may even have employed them with much less fortunate results. None the less it is worth while to study the details of the case carefully, in order to see if it may not furnish useful suggestions for the management of this dreadful disorder.

SMALL PLAGIARISMS.

Once or twice lately we have adverted to the matter of plagiarism in the medical journals and have called attention to rather heinous examples of it. But there remains a species of plagiarism which deserves a

word, because—while less serious in some senses—it is a more frequently occurring breach of courtesy and morals. This is the practice of stealing abstracts and translations from other journals, which is usually indulged in by obscure publications, but which at times is not too small for journals of which better things might reasonably be expected. An example of this is to be found in the *Journal of the American Medical Association* for October 26, which contains a short article that was translated in the office of the *Medical News*, and published in its issue of September 14. This has been appropriated, word for word, without naming the source from which it was derived and in a way calculated to convey the impression that it was a translation made in the office of the Journal of the Association. Such a proceeding is never admirable and it is especially to be regretted that it appears in a journal which represents the American Medical Association, and which ought to set an example of austere virtue to the other journals of this country.

OBLIGATORY ATTENDANCE BY PHYSICIANS.

The close watch and rigorous supervision which are exercised in most European countries over all trades and professions have many advantages; but they have also a certain accompanying disadvantage. On the one hand, it is not so easy as in freer lands for the unworthy to impose upon the credulity of the community; but on the other hand the censorship of the Government sometimes proves trying to those who are worthily pursuing their avocations. An illustration of this is to be seen just now in Austria, where the members of the medical profession are endeavoring to obtain from their Parliament modification of an existing law, which imposes a fine of one hundred florins (about fifty dollars) upon any practicing physician or midwife who, without a satisfactory reason, refuses assistance in any

case where it is urgently needed and cannot be obtained from others. This law the physicians of Austria wish to have amended so that it shall name the diseases or conditions in which assistance shall be regarded as "urgently needed," so that the construction of the term shall not depend upon the fears or prejudices of the people. They also ask that a provision shall be inserted, that the Courts shall not consider any complaint under this law until after an opinion on the case has been obtained from a competent medical man.

Our sympathies go with our brothers beyond the sea in this matter, and we agree with them that the law, as it now stands, contains a needless imputation against the fidelity of the profession; more than that, it furnishes altogether too easy a method for bringing a most serious and damaging accusation against any individual physician who may incur the ignorant or malicious ill-will of others. It is not so much the matter of the fine, but rather the shame of the thing which we find objectionable.

In this country we know of no law on this subject; although we believe that a Court has held that a physician must respond to the call of those who summon him, unless he can give a good reason for refusing to do so. This, however, is no source of danger here; and a physician must be in bad plight who cannot justify his conduct in a case in which humanity does not demand his immediate response—and if one refuses when humanity demands his action, he ought to suffer for it.

For the present, for these and other reasons which we cannot now go into, we may be satisfied with the state of our own laws on the subject, and hope our Austrian colleagues may get rid of theirs.

—If you use a fountain pen, and find it difficult to unscrew the tip, wrap a rubber-band a few times around it, and this will give you a good grip. A string or dampened piece of paper will also help.

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BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the *REPORTER*.]

ELECTRICITY IN FACIAL BLEMISHES. By PLYM S. HAYES, A. M., M. D., Late Professor of Chemistry and Toxicology, Woman's Medical College, Chicago, etc. 12vo, pp. 128. Chicago: W. T. Keener, 1889. Price, \$1.00.

This small book is devoted entirely to the subject of the use of electricity in the removal of facial disfigurements, such as superfluous hair, port-wine marks, moles, and similar blemishes. The method referred to is that known as electrolysis. As to be supposed, the operation for the removal of superfluous hairs receives the greatest attention, and the several steps of this delicate operation are intelligibly described. The volume may be looked upon, indeed, as a counterpart of what is to be found in recent dermatological textbooks; but it is more minute in the details, and therefore probably of greater value to those who have had no experience in the use of this method.

ORTHODONTIA, OR MALPOSITION OF THE HUMAN TEETH; ITS PREVENTION AND REMEDY. By S. H. GUILFORD, A. M., D. D. S., Ph. D., Professor of Operative and Prosthetic Dentistry in the Philadelphia Dental College, etc. 8vo, pp. 186. Philadelphia: Spangler & Davis, 1889. Price, \$1.75.

This book has been written at the request of the National Association of Dental Faculties, in furtherance of its plan to secure the preparation of a series of text-books for use in American Dental Colleges. In the first part of the book, the author discusses the principles involved in the correction of irregularities in the position of human teeth; in the second part, the materials and methods employed in correcting the irregularities; while the third part is devoted to a description of the specific forms of irregularity and to their treatment.

Dr. Guilford asserts that scarcely any deformity of the mouth and teeth is beyond mechanical remedy, but he cautiously adds: "What is possible may not always be advisable." His language is clear and to the point. The chapters and also the minor subdivisions are arranged so that any one can tell without difficulty what each page is about. The illustrations, of which there are eighty in all, are excellent. The book is handsomely printed on good paper and in clear, large type, so that in all respects it can be cordially recommended to students and practitioners of dentistry.

ESSENTIALS OF PATHOLOGY AND MORBID ANATOMY. By C. E. ARMAND SEMPLE, B. A., M. B. Cantab.; L. S. A., M. R. C. P. Lond.; Physician to the Bloomsbury Dispensary, etc. 8vo, pp. xvi, 160. With forty-six illustrations. Philadelphia: W. B. Saunders, 1889. Price \$1.00.

This book gives a very good general review of pathology, including inflammation, tuberculosis, the degenerations, tumors, diseases of the blood, syphilis, hydrocephalus, atrophy, the pathology of the urine, and animal and vegetable parasites. The last three subjects are rarely considered in so small a work as the present one, but they are, in the main, very well treated. The illustrations vary greatly in relative merit; those of tuberculosis and of the tubercle bacilli

are excellent, while those illustrating the parasite of ring-worm and of favus are very poor. It would have been much better, also, to have given a picture of ringworm of the scalp, showing the spores invading the hairs, than of ringworm of the body; for the latter is much easier to recognize than the former.

Dr. Semple has succeeded in compiling a very useful little book. He has given the important parts of the subject briefly but clearly. The printing, however, is from old plates or with much-worn type.

LITERARY NOTES.

—*Lippincott's Magazine* for November contains an interesting article on "The Question of Pure Water for Cities," by William C. Conant.

—It is announced that on January 1, 1890, *The Journal of Comparative Medicine and Surgery* will appear with a slightly changed title, and as *The Journal of Comparative Medicine and Veterinary Archives* will be issued monthly instead of quarterly as heretofore. *The Journal of Comparative Medicine* will continue to note all new matters in the rapidly advancing progress made in the study of the anatomy, physiology, pathology, and therapeutics of all animals; and the scientific writers who have aided in establishing the reputation of the Journal as a pioneer in publishing original researches in regard to our lower brethren, will continue to contribute to its pages. *The Veterinary Archives*, once a month, will place before its readers immediately a complete record of all the important and interesting discoveries, news and advances in veterinary medicine.

The subscription price is raised to \$3.00, payable in advance. Subscribers who have already paid in advance will receive the monthly until the date on which their subscription terminates. The Junior editor, Dr. Huidekoper, will assume the active management of the Editorial Department instead of Dr. W. A. Conkin, of New York.

CORRESPONDENCE.

Accusation against a Physician.

TO THE EDITOR.

Sir: There has recently come before the courts of Lackawanna County, Pa., a case of much interest to the medical profession. Especially is it valuable to the younger practitioners, some of whom, unless this lesson is heeded, may, like the unfortunate doctor in question, awake some morning to find themselves famous in quite another way than did the immortal Byron. Dr. X., a young physician of this city, was called hurriedly, one day last March, to see Mrs. M., a reputable married woman, living near him. He found her in a hysteroid state, and by questioning discovered that she was suffering from prolapsus uteri—such, at least, was her diagnosis. He discovered also that for

many years she had been accustomed to have "fainting spells," during which, however, she retained consciousness. He made an engagement for another visit on the 30th of the month, when he saw her at her home. There were present in an adjoining room the woman's little daughter and a servant girl, aged about seventeen years. According to the patient's story, the doctor placed her in Sims position on her bed; but, instead of proceeding with the vaginal examination, deliberately commenced to loosen her dress at the bosom and took further unwarranted liberties with her person. She shrieked and leaped from the bed, brandished a chair and drove him from the house. To this she testified under oath, and two of her neighbors testified that her little girl came running for them, and that upon arriving at the house, they found the woman sitting in a chair and "feeling bad." The doctor testified that, after placing the patient in Sims position he put one hand over the uterus, intending to make a bi-manual examination, and introduced his index finger into the vagina; that when his finger was partially introduced the woman leaped from the bed, began crying, and said: "I've been in my father's mansion for twenty years, and now I'm ruined." He endeavored to quiet her, but, not succeeding, left the house. Having previously made arrangements to leave the city—a fact not questioned by the prosecution—he did go, and on his return was arrested on the charge of attempt to rape with assault.

Testimony from several clergymen and other reputable citizens was introduced, showing the previous good character of the physician, also medical evidence to the effect that the plaintiff was hysterical and that vaginal examinations in this class of cases were often made the basis of unfounded and baseless charges against the physicians. One physician testified that he had been thus accused by an hysterical woman, even though the examination was made in the presence of her own husband. Judge Connelly, in his charge to the jury, remarked that he was "firmly convinced that hysterical women under the excitement of a vaginal or uterus examination often made unfounded and unreasonable charges against their physicians." He further told the jury that, if a "reasonable doubt" existed in their minds as to the defendant's guilt, they should promptly acquit him. The jury was out nearly four hours, and returned with a verdict of *guilty*,

though recommending the doctor to the mercy of the court.

Yours truly,
Scranton, Pa., S. M. W.,
Oct. 30, 1889.

Telephone Probe.

TO THE EDITOR.

Sir: In regard to the criticism on my probe in the REPORTER, of Oct. 19, I beg to state, in addition to your reply—which was correct—that the "making" and "breaking" of a telephone circuit does not cause audible sounds in the telephone unless the points of contact be metallic; and that, although the current is partially closed, the moment the probe comes in contact with moist tissue, no indication is given until a metallic contact is "made" or "broken." I may also add that my invention does not only exist "on paper," but is a practical one, and will "act as described."

Yours truly,
HARVEY B. BASHORE, M. D.,
West Fairview, Pa.,
Oct. 26, 1889.

NOTES AND COMMENTS.

Devouring Offspring.

Dr. William Duncan, in a recently published paper on the fer-de-lance, one of the *Crotalidae*, or pit vipers, of the West Indian Islands, says that the female fer-de-lance devours her young in very wholesale fashion. This dangerous serpent is very prolific, and sometimes brings forth as many as two hundred young at a birth, seldom less than one hundred. Dr. Duncan says the female fer-de-lance, when about to bring forth her young, generally selects a fairly open or cleared space, a mountain footpath being a favorite spot. Along this she crawls slowly, dropping her young one by one on the way. As soon as the last has been brought forth, the faint and hungry mother turns and devours the first of her brood that meets her sight, and continues this unnatural course until satiated with her repast, or she finds no more of her offspring to glut her rapacity. Naturally many of them, three-fourths at least, escape, and these the strongest—a clear case of the survival of the fittest. This has been observed by several planters in St. Lucia, and has been mentioned to

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me independently by Mr. E. S. Gordon, Mr. A. R. Marucheau, and Mr. Marius Davaux, and others of the colony.

These statements, taken from *Science*, Oct. 18, 1889, are directly contrary to observations made upon the crotalidae of Asia, by Dr. de Lano Eastlake, who read a paper on this subject before the Japan Branch of the Royal Asiatic Society in 1886. Dr. Eastlake says that the majority of the crotalidae bring forth only from ten to fifteen young at a time, and the fer-de-lance is no exception to this rule. Regarding the infanticide tendencies of the reptile, there must also be some mistake. The *manushi* (*Trigonocephalus Bloomhofii*) of Japan and China will frequently defend their young at the cost of their own lives, and the Japanese say that the infant vipers will run into their mother's mouth to escape from danger.

Extraordinary Abdominal Injury.

Mr. A. H. S. Todd, House-Surgeon, Monkstown Hospital, reports in the *British Med. Journal*, Oct. 5, 1889, an extraordinary abdominal injury, which occurred a few miles outside Dublin, during the hay-making season last summer. A man, aged 22, was working at a hayrick, and, for descent, slid down the side of the rick. Making an effort to clear the back of the rick, he alighted on the handle of a pitchfork which was stuck upright into the ground about two feet from the base of the rick. The handle entered his perineum, lacerating it to its full extent. With an effort he got off the pitchfork and walked round to the other side of the rick, when he fell down in a collapsed condition. He was then conveyed to Dr. Steevens's Hospital, where he was attended to by Dr. Myles, who washed out the wound in the perineum and found the sphincter ani completely lacerated and the lower end of the rectum "in a pulp," as he expressed it, the feces escaping involuntarily with clots of blood. He could discover no laceration into the abdominal cavity. On examination over the abdomen a peculiar splashing sound was elicited in the right iliac fossa, and the abdominal muscles were found board-like in their rigidity. At 6 P. M. Dr. McCausland and Mr. Todd made a further examination, and found urine escaping from the bladder mixed with blood. A known quantity of corrosive sublimate solution was injected into the bladder, which returned

immediately in its entirety, negativing any communication with the perineal wound. The patient every five or ten minutes passed urine intimately mixed with blood; there was no ecchymosis in the loins, no pain felt down the ureters, and no anaesthesia in the upper part of either thigh. The patient rallied somewhat from the shock under the influence of opium, but died at 4 A. M. next morning. On *post-mortem* examination the abdomen was found enormously and uniformly distended with gas, and decomposition had already set in. Although the examination was made within twenty-four hours of death, *rigor mortis* was well marked. The perineum was lacerated from the central point to the coccyx. On incision an enormous quantity of gas escaped, the omentum and small intestines were found covered with a thick layer of feces, and a considerable amount of fluid was found in the pelvis (probably introduced in washing out the perineal wound). The small intestines were bruised and congested in several places; all the organs were congested; and, scattered here and there over the visceral peritoneum of the intestines, were little spots of adherent lymph, as though a certain amount of reaction had taken place before death. On examination of the kidneys, the left was found lying in a huge clot of blood in a lacerated and bruised condition. The rectum was lacerated in a longitudinal direction to the extent of two inches in its first stage, close to the brim of the true pelvis on its left side. The ureter, bladder, and prostate were uninjured.

Philadelphia Polyclinic.

The Philadelphia Polyclinic has recently elected the following Emeritus Professors: Dr. Richard T. Levis, of Surgery; Dr. S. Solis-Cohen, of Diseases of the Throat; Dr. Charles H. Burnett, of Diseases of the Ear; Dr. Charles B. Nancrede, of General and Orthopedic Surgery.

An additional chair of Orthopedic Surgery was established, and Dr. Thomas G. Morton was elected to it.

A department of Dentistry was created. A department of Experimental Therapeutics and Physiology was created, and Thomas J. Mays, M. D., was elected Professor. The Clinical Chair of Surgery was filled by the election of Thomas S. K. Morton, M. D. Professor.

C. L. Bower, M. D., was elected Adjunct Professor of Clinical and Operative Surgery and J. Abbott Cantrell, M. D., Adjunct Professor of Diseases of the Skin.

The Chair of Pathology was left vacant.

Treatment of Endometritis.

In the treatment of the milder cases of endometritis, Terrier introduces medicated pencils into the cavity of the uterus. He recommends for this purpose, in the *Semaine médicale*, iodoform or corrosive sublimate:

R Iodoform gr. cl.
Gummi tragacanth. gr. viiss
Glycerini,
Aqua destil. aa q. s.
Ut fiant bacilla (pencils) No. X.

The pencils made according to this formula are said to be about the size of sticks of nitrate of silver. Resorcin or salol may be used instead of iodoform.

Terrier recommends the following formula for making corrosive sublimate pencils:

R Hydrg. chlor. cor. gr. viiss
Talc. 3 viiss
Gummi tragacanth gr. xxij
Aqua destil.,
Glycerini aa q. s.
Ut fiant bacilli No. I.

The vagina is first washed out with a one per thousand solution of corrosive sublimate, and then the pencils are introduced into the cavity of the uterus. They are prevented from slipping out by tamponing the vagina with iodoform gauze.—*Wiener med. Presse*, June 9, 1889.

Treatment of Fractures of the Spine.

The treatment of fractures of the vertebral column entailing compression or of damage to the spinal cord, has not hitherto been either active or successful. The surgeon for the most part gives Nature a free hand, and beyond some attempt at fixation, does nothing except minister to each symptom as it arises. Of course there are cases in which the injury to the cord is so severe, that even under the most favorable circumstances the patient cannot hope to be spared the immediate paralysis and subsequent degeneration. There must, however, be others in which, as in corresponding injuries to the

cranium, the damage is confined to pressure and irritation either from splinters of bone or laceration of the membranes, with hemorrhage. In this latter class of cases it seems possible that the surgeon may yet intervene with some prospect of success in relieving a condition which, if left to itself, soon brings about chronic nerve changes, resulting in permanent disablement and even a fatal result at no distant period. Mr. Herbert Allingham recently trephined in two cases of fracture of the spinal column, and although the improvement was not all that one could have wished, he at any rate succeeded in demonstrating, on the lines laid down by Mr. Victor Horsley, that the operation of exposing the cord is neither difficult nor dangerous. That, after all, is of more importance than the result in the first two or three cases, since his success, in so far as the operation itself is concerned, may tempt other surgeons to follow up the idea. It may almost be laid down as a rule in surgery in cases of injury to the spine, that if, at the end of a week, no marked improvement has taken place, the proper course is to explore.—*Medical Press and Circular*, April 24, 1889.

Polyclinic Therapeutical Society.

At the last meeting of the Polyclinic Medical Society, a therapeutical section was formed from among the faculty, clinical assistants, and students of the Philadelphia Polyclinic, whose object is the scientific and systematic investigation of the action of drugs and remedies in the cure of disease. The Executive Committee of this section formulates a programme of practical work for each meeting, decides what drugs or remedies are to be investigated during the following months, devises specific directions in regard to such investigations, and supplies printed blank forms to carry the work into practical effect, with which any member of the profession who desires to take part in the research will be furnished free on application. These blank forms are filled out by the observer and returned as soon as the investigation is completed, which will be at the end of one or two, and not later than three months; at which time the reports will be analyzed and presented at the following meeting with due credit to each contributor, and the results will be published in the medical journals. It is believed that a com-

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bined effort on such a large scale will not only benefit those engaged in the work, but will be of great value to practical therapeutics.

Dr. Mays read a paper on *Olive Oil in Gall-Stones*, and olive oil in this affection was made a subject for investigation during the next two months. All communications in reference to this subject should be addressed to Therapeutical Section, Philadelphia Polyclinic.

Morphine and Morphine Solutions.

The *Pharmaceutical Journal and Transactions*, says M. Lamal, attributes the turbidity, yellow color, and acid reaction which are developed in aqueous solutions of morphine salts, as well as the separation of crystals, to the action of light and organized ferment (*Journal de Pharmacie et de Chimie*, January 15, page 62). The yellow color he considers to be due to the formation of an amorphous substance that appears to be identical with the morphetine of M. Marchand; the crystals are said to be the result of the oxidation of morphine to oxymorphine, and the acid reaction is referred to both morphetine and salts of oxymorphine. The formation of apomorphine in solutions of salts of morphine is denied. M. Lamal states, as the result of his experience, that an aqueous solution made with a perfectly pure salt of morphine and double-distilled water will remain unaltered as long as it is kept sheltered from light and atmospheric dust. In the organism, M. Lamal says, morphine is sometimes entirely, sometimes partially converted into oxymorphine, both the oxymorphine and any unaltered morphine being eliminated with the urine. It would be important, therefore, in toxicological investigations to search in the blood, urine, and vascular organs for oxymorphine, the presence of which would be an additional proof of the ingestion of morphine.

—*National Druggist*, July 1, 1889.

Dextrin Mucilage for Embedding.

For those who use the freezing microtome, it will be found useful, in the present high price of gum-arabic, to know that gum-dextrin answers just as well as the former, and costs only about one-fifteenth as much. Mr. T. L. Webb writes upon this point to the

Provincial Medical Journal, as follows:—"I find that by making an aqueous solution of carbolic acid (about 1 part of the acid to 40 parts of water) and dissolving therein sufficient dextrin to make a thick syrup, a medium is obtained which is superior to the time-honored gum and sugar in three ways. It freezes so as to give a firm support without becoming too hard; it keeps better than gum, in which several kinds of fungi are apt to grow; and it is much cheaper, costing only about fourpence (8 cents) per pound, while powdered gum accacia costs five shillings (\$1.25). Dextrin dissolves but slowly in cold water, so that a gentle heat is advisable when making the mucilage."—*St. Louis M. and S. J.*, Oct., '89.

Beer Compared With Other Alcohols.

For some years a decided inclination has been apparent all over the country to give up the use of whiskey and other strong alcohols, using as a substitute beer and other compounds. This is evidently founded on the idea that beer is not harmful, and contains a large amount of nutriment; also that bitters may have some medical quality which will neutralize the alcohol which it conceals, etc. These theories are without confirmation in the observation of physicians. The use of beer is found to produce a species of degeneration of all the organs. Profound and deceptive fatty deposits, diminished circulation, conditions of congestion, and perversion of functional activities, local inflammations of both liver and kidneys are constantly present. Intellectually a stupor amounting to almost paralysis arrests the reason, changing all the higher faculties into a mere animalism, sensual, selfish, sluggish, varied only with paroxysms of anger that are senseless and brutal. In appearance, the beer-drinker may be the picture of health, but in reality he is most incapable of resisting disease. A slight injury, a severe cold, or a shock to the body or mind, will commonly prove acute disease, ending fatally. Compared with inebrates who use different kinds of alcohol, he is more incurable, and more generally diseased. The constant use of beer every day gives the system no recuperation, but steadily lowers the vital forces.

Recurse to beer as a substitute for other forms of alcohol merely increases the danger and fatality.—*Scientific American*.

NEWS.

—Five Chinese lepers were shipped home from San Francisco, Oct. 29, on a Hong Kong steamer. Among them was a man who was sent to San Francisco from New York, where he had been employed as a cook for laborers on the Croton aqueduct work.

—Dr. Isaac E. Taylor, founder of Bellevue Hospital Medical College, died suddenly, Oct. 30, in New York City, of pericarditis, in the seventy-eighth year of his age. He was born in Philadelphia in 1812 and was graduated at the University of Pennsylvania in 1834.

—The Indiana State Board of Agriculture has advices from many of the northern and northwestern counties saying that hog cholera is epidemic, and that hundreds of hogs are dying daily, and that the disease is steadily increasing. No remedies appear to have any effect, and all attempts to stop the spread of the disease have failed.

—The spread of diphtheria and scarlet fever in Lawrence, Massachusetts, has become so alarming that in all the Catholic churches Oct. 27 the priests warned the people not to visit from house to house any more than was necessary. It is stated that no funeral of the victims of these diseases will be allowed from the churches.

—Rear-Admiral J. H. Gillis writes from Montevideo, September 11, 1889, that yellow fever is breaking out in various parts of Brazil, also in the city of Rio de Janeiro. This indicates an unusually sickly season, and he strongly urges, that unless circumstances arise rendering the presence of one of our vessels imperatively necessary, none be permitted to visit infected ports of Brazil this year.

—At the last meeting of the Prussian Academy of Sciences, a large number of grants were made for scientific and medical purposes, amounting in all to 18,000 marks, or about \$5,000. To Professor Briegger a grant of 1,800 marks (\$500) was made to enable him to continue his investigations regarding the ptomaines, and to Dr. Fleischmann, of Erlangen, a like sum to enable him to procure material for his embryological researches. Many other grants were also made but were for biological or other scientific purposes.

—At a meeting of the Philadelphia Pathological Society held October 10, Dr. Henry F. Formad was elected President for the ensuing year, and Drs. John H. Musser,

John Guiteras, H. R. Wharton, and A. V. Meigs Vice-Presidents. The retiring President, Dr. F. P. Henry, read his annual address, calling attention to the flourishing condition of the Society, and the valuable work which has been accomplished during the past year—work that will constitute a record of great credit in the coming volume of the Transactions.

—A remarkable occurrence is reported from Belgium, where several inmates of a newly-constructed almshouse died very suddenly and without apparent cause. Investigation revealed the fact that the water supplied to the institution, which came from a spring near by, contained 0.7 of a grain of arsenic acid to the gallon, and it has since been used medicinally as a substitute for Fowler's Solution. Arsenical mineral waters have been known before, but this is the first instance on record where fatal accidents have occurred from their use.—*Popular Science News*, Oct., 1889.

—Dr. C. A. Lindsley, Secretary of the Connecticut Board of Health, has nearly finished an examination into the causes of the prevalence of typhoid fever at Yale College. Of the eight cases among the 1,500 students at the college, of which three have resulted fatally, Dr. Lindsley finds that all began during the first two or three weeks after the opening of the college term, and that during the last two weeks no new cases have developed. Most of the cases came on almost immediately after the term began. Dr. Lindsley therefore is convinced that the seeds of the fever existed in all the cases of the affected students before they came to New Haven.

—The United States Consul at Tien Tsin, China, has notified the Department of State of an important step taken by Li Hung Chang, Grand Secretary of State for China. Li Hung Chang has decided to establish a medical service for the Chinese army and navy on the basis of the best Western models. That he may have the best of these to study, he has solicited the help of the State Department of Washington to obtain a complete collection of the present regulations of the Medical Department of our army and navy. The proposed Chinese service is to be under a foreign Surgeon-General with an adequate staff of assistants. It will include hospitals and dispensaries at various places, a medical school, and native surgeons for the fleet and the military stations of North China.